

**CLAIMS**

What is claimed is:

1. A shock absorber comprising;  
a magnetized plunger;  
a conductive coil disposed about said magnetized plunger, forming a circuit;  
and  
a vehicle ground with one of said magnetized plunger and said coil fixed to move with said vehicle ground support, and said coil being selectively actuated to provide a magnetic force resisting movement of said vehicle ground support.
2. The shock absorber of Claim 1 wherein said vehicle ground support is attached to said magnetized plunger.
3. The shock absorber of Claim 1 wherein said conductive coil creates said electromagnetic field about said magnetized plunger so as to slow its movement.
4. The shock absorber of Claim 1 wherein said magnetized plunger generates a current in said coil by the movement of said magnetized plunger.
5. The shock absorber of Claim 4 including a battery in communication with said circuit.
6. The shock absorber of Claim 5 wherein said battery stores electric energy generated by the movement of said magnetized plunger relative to said coil.
7. The shock absorber of Claim 1 wherein said circuit comprises a switching circuit.
8. The shock absorber of Claim 7 wherein said switching circuit includes a field effect transistor.

9. The shock absorber of Claim 8 wherein said switching circuit switches at a higher frequency than the frequency of movement of said magnetized plunger.

10. The shock absorber of claim 1, wherein a control senses movement of said vehicle ground support and selectively actuates said coil when it is desired to resist movement of said vehicle ground support.

11. A shock absorber comprising;  
a magnetized plunger;  
a conductive coil disposed about said magnetized plunger, forming a circuit;  
and  
a wheel connected to move with said magnetized plunger and said coil  
selectively actuated to resist movement of said magnetized plunger and hence said  
wheel; and  
a control sensing movement of said wheel and actuating said coil when  
resistance is desired.
12. The shock absorber of Claim 11 wherein said magnetized plunger generates a  
current in said coil by the movement of said magnetized plunger.
13. The shock absorber of Claim 12 including a battery in communication with said  
circuit.
14. The shock absorber of Claim 13 wherein said battery stores electric energy  
generated by the movement of said magnetized plunger about said coil.
15. The shock absorber of Claim 11 wherein said circuit comprises a switching  
circuit.
16. The shock absorber of Claim 15 wherein said switching circuit includes a field  
effect transistor.
17. The shock absorber of Claim 16 wherein said switching circuit switches at a  
higher frequency than the frequency of movement of said magnetized plunger.

18. A method of shock absorption comprising the steps of:  
moving a wheel in a first direction;  
generating an electromagnetic force in a second direction opposing said first direction; and  
controlling the movement of the wheel through the electromagnetic force.
19. The method of Claim 18 including the step of generating electromagnetic energy from the movement of the magnetized plunger.
20. The method of Claim 19 including the step of storing the electromagnetic energy.